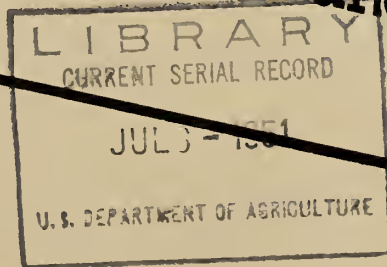


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**The Agricultural Conservation Program
on
CALIFORNIA'S
FARMS and RANCHES**



**PA-31
July 1947**

**U. S. DEPARTMENT OF AGRICULTURE
Production and Marketing Administration
California State PMA Committee**

The Agricultural Conservation Program IN CALIFORNIA . . .

THE Agricultural Conservation Program is authorized by Congress in the Agricultural Adjustment Act of 1938. It is administered by the United States Department of Agriculture. Its purpose is stated in the act: "preserving, maintaining, and rebuilding the farm and ranch land resources in the national public interest; to accomplish these purposes through the encouragement of soil-building

and soil-conserving crops and practices . . ."

Not all land is alike. Each farm, each livestock range, has its own conservation problems—its own production possibilities. Soil conservation means caring for each piece of land according to its own needs. It also means using each piece of land for what it is best suited in supplying present and future requirements.

SOIL IS THE FOUNDATION

Soil, along with water, is our most important natural resource. Civilization rests on a few inches of topsoil. Soil is the basis of our continued existence—nationally and individually. It is the source of most of our food and fiber. It is constantly subject to damage by wind and water. Improper farming and grazing hasten the loss. Once the soil is lost, it takes centuries to replace it.

As a Nation, we have recklessly wasted our soil. California has contributed heavily to that waste. *In less than a hundred years* California has lost crop and rotation pasture land at an alarming rate:

Seventy-five percent of the topsoil eroded on 250,000 acres; 25 to 75 percent of the topsoil eroded on 2,500,000 acres; slight but increasing erosion on 3,500,000 acres.

The figures are from surveys by the United States Department of Agriculture.

Gully erosion on grazing land due to overstocking. Overgrazing reduced protective cover of native grasses and left topsoil bare to winter rains. Such erosion permanently damages productivity and grazing capacity of the range. Proper range-land management would have prevented this destruction.





Erosion on valuable California cropland. Proper conservation measures, such as contour cultivation, mulch tillage, terracing, or strip cropping, help to check this kind of erosion. Steeper slopes should be planted to permanent cover.

CONSERVATION PRACTICES

Any operation which helps to keep land productive, prevent erosion, or conserve water, is a conservation practice. The Agricultural Conservation Program provides guidance and financial help to farmers and ranchers in applying necessary conservation practices to their land.

This booklet presents a few ACP practices which are approved for use on California farms and ranches. Back of them are the experience of practical operators, the research and technical developments of the State agricultural experiment stations, the Federal-State Extension Service, the Forest Service, and the Soil Conservation Service of the United States Department of Agriculture, and

the Bureau of Land Management of the Department of the Interior. The practices are adapted to local conditions and the program is administered by the farmers and ranchers elected to serve as county and community Agricultural Conservation committeemen.

PROGRAM INFORMATION

More information about the Agricultural Conservation Program is available from your county Agricultural Conservation Association Office, or from the State PMA Office, 2288 Fulton Street, Berkeley, Calif.

California State Production and Marketing Administration Committee, Berkeley, Calif.

California's Agricultural Conservation Program . . .

GUARDS AGAINST EROSION



Orange County

This sloping bean land is protected from erosion by grade diversion ditches. The ditches empty into an old gully channel in the middle of the field. Gully erosion is now controlled by a series of concrete drops.

Contouring and terracing sloping orchard and farm land—strip cropping—building and maintaining drainage and diversion ditches—checking gullies—protecting stream banks—these are some of the Agricultural Conservation Program practices being used effectively by California farm operators to meet

their erosion, leaching, and seepage problems.

These practices keep the soil on the farms, where it will produce food and forage—now and in the future. They keep the soil out of streams and rivers and thus help to solve silting and flood problems, which are the more spectacular evidences of farm-land erosion.

Solano County

Erosion on adjacent land was turning this natural drainageway into a gully. Gully is being controlled by series of brush check dams. Small gullies frequently can be healed entirely by such measures.





Solana County

To prevent erosion, orchard at left of the property line has been cultivated across the slope. Orchard on right has been cultivated up and down slope. Notice effect of severe erosion on orchard development at right.



Nevada County

Drainage ditch in mountain meadow. Now drained by the simple ditch in foreground, this meadow provides valuable hay and pasture. Such ditches are also useful on cropland and orchard land.



Orange County

This drainage channel was rapidly deepening and cutting into the orchard on each side. The channel is now controlled with concrete check dams and by pipe and wire riprap along the banks.

California's Agricultural Conservation Program . . .

CONSERVES WATER



Sonoma County

This earthen dam storing run-off water for stock has an outlet pipe and valve controlled from the upstream side to release water for irrigating a small pasture. Note protected spillway at left side of dam. Making water available in dry areas results in wider stock distribution and more uniform grazing.

Merced County

Concrete stock-water trough on dry pasture. Windmill and storage reservoir, situated at intersection of two line fences, supply this trough as well as three others, each located in an adjacent pasture.



Agricultural Conservation Program payments help farmers and ranchers with the cost of carrying out water-conservation practices on their land. Some of the water-conservation and water-management practices approved for use in California counties include the building of structures to store run-off water for irrigation and for livestock, reorganizing farm irrigation systems to make better use of limited water supplies, and subsoiling to increase water penetration on farm land.

Siskiyou County

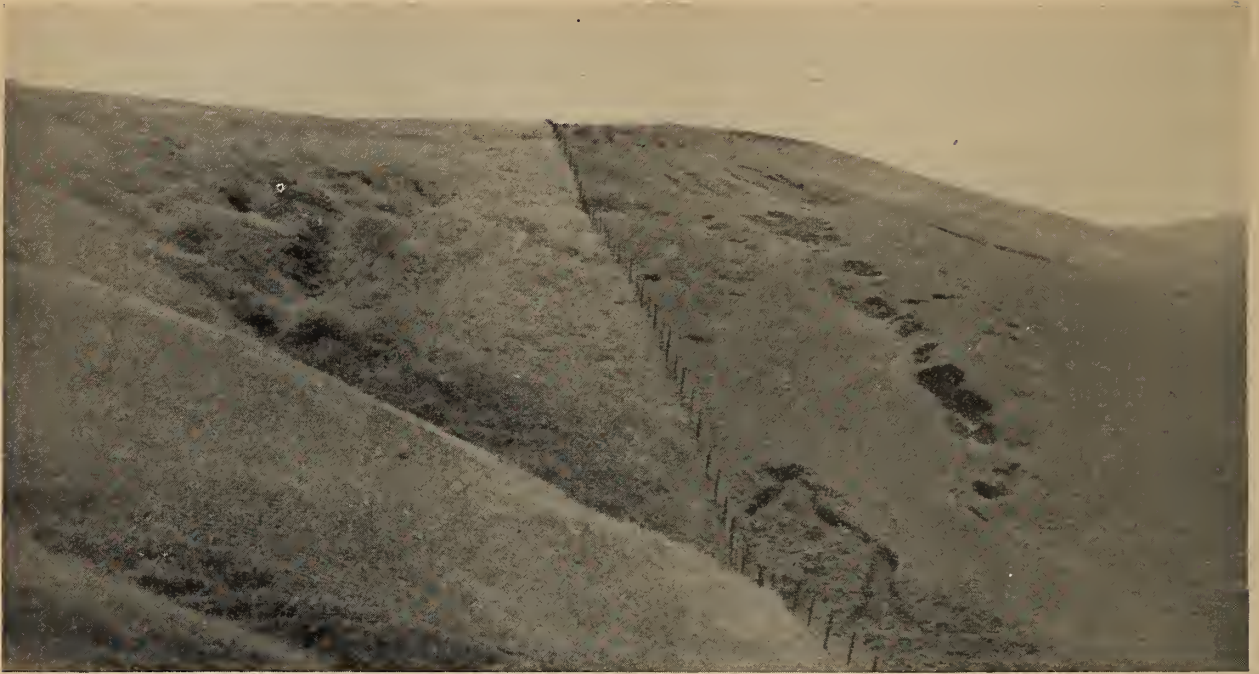
Right.—This heavy equipment is used for breaking up hard subsoil so the dry-farmed grain land will absorb and store more rainfall for the next crop. On sloping land, subsoiling permits moisture to penetrate the field's surface instead of running off, carrying soil with it.

Santa Barbara County

Below.—Permanent legume-grass pasture irrigated on the cantaur. Heavy irrigation requirements of such pastures are met with less water and the pastures produce more forage when the irrigation system is well planned.



California's Agricultural Conservation Program . . . IMPROVES PASTURES AND RANGES



San Benito County

The left side of the picture above illustrates sustained forage production, which is the objective of good forage management. Pasturing down to the ground, as was done to the right of the fence, leads to decrease in forage, to erosion, and to lower income to the operators; to less meat, wool, and hides for consumers.



Madera County

Grass-fencing provides for rotational grazing, which means better distribution of the livestock, better management of the range, and increased profits in the long run.

Range and pasture practices under the Agricultural Conservation Program aid California livestock producers to maintain their grazing lands at a level which will assure maximum sustained production, and protection of soil resources. The program gives operators assistance in making stock-water developments, carrying out natural and artificial reseeding, cross-fencing, and protecting their range against fire and inroads of destructive plants. Irrigated pastures can supplement range and level out forage peaks and valleys. These practices increase productive-ness of private range land and pastures, thus making the livestock business more profitable for California ranchers and more permanent and productive for consumers.

Merced County

This fireguard paid off. The upper picture shows the bulldozer and grader on the job on a range in the late spring. Lower photograph of the same site later in the summer shows how the guard halted the sweep of a grass fire. The fire truck used the firebreak as a road over the rough terrain.





El Dorada County

Clearing brushland for new pastures provides additional forage for livestock production and relieves older pastures from overuse. ACP payments carry part of the expense of performing this and other pasture and range improvement practices.



Irrigated pastures such as these have proved their value in sustained livestock production and may be found in any section of the State.



California's Agricultural Conservation Program . . .

BUILDS SOIL FERTILITY

Much of California's farm and orchard land needs periodic application of commercial fertilizers to sustain heavy production. Nature's own fertilizers—green-manure crops, straw, and crop residues—also enrich the soil. In addition, they help to prevent erosion, to reduce evaporation, and to soak up rainfall.

The Agricultural Conservation Program encourages farmers to build fertility and productivity through conservation-practice payments for green manuring, mulching with crop residues, and for spreading superphosphate fertilizer, sulphur, and lime on soil-building legumes and grasses.

Ventura County

Sweetclover as a green-manure crop for orchard. Disked under in the spring, such crops provide a heavy growth of green manure and needed humus for both orchard land and cropland. While growing during the rainy season, green-manure crops also provide excellent protection against erosion.



Santa Cruz County

Grass cover crop on a hillside orchard. Erosion in many California orchards can best be controlled by cultivating as little as possible and by encouraging growth of grass and legume cover crops.



The Agricultural Conservation Program . . . **ON A CALIFORNIA FARM OR RANCH**



Conservation practices available in any particular county are those selected by the county committee of locally elected farmers from a list of State and nationally approved practices.

The operator discusses his conservation plans and needs with an ACP committeeman or an assistant in his county Agricultural Conservation office and signs a farm plan or range-management plan before May 1 each year.

The county committee reviews each operator's farm or range plan, and the practices are approved which will yield the greatest soil and water conservation for the funds available. The practice must conform to good-farming specifications to qualify for practice payments. The payments cover only a part of the cost of the practices—the farmer shares with the Nation in the cost as well as the returns. The county committee helps each operator obtain the technical assistance needed to lay out the practices so as not only to qualify for payment but to provide lasting conservation.

As conservation methods become widely accepted and used, they bear fruits in increased production and improved soil and water resources. Effort, then, is shifted to other practices which are badly needed and which require the concerted action made possible by the program.

Conservation Is a Public Responsibility

Failure to protect the soil, as history so often shows, is the starting point for poor land—poor people—poor nation—and finally, a dead civilization.

The Agricultural Conservation Program is a Government-operator partnership for the encouragement, practical demonstration, and financial assistance to farmers and ranchers in the ever-broadening attack on poor land use, inefficient production, and soil erosion.

Conservation farming is efficient farming. It gives greater returns today, yet leaves the

Nation's basic capital—its fertile soil—in the bank to provide for the future.

The assistance offered by the program through the local county Agricultural Conservation Association is open to all farmers and stockmen operating in the State. Information on the program and how to participate in it is available at the county ACA (formerly AAA) office, from your farm adviser, or from the California State Office, Production and Marketing Administration, Berkeley, Calif.